

CEFS/SCOS_WEB Version Documentation and Update Chronology (Version 1.0)

CEFS/SCOS_WEB Version 1.0 was developed to provide “draft” planning and modeling projections for the ARB and district staff to use for analyses of future year emission inventories for plan development and photochemical modeling. Version 1.0 outputs were used for the “Draft” 2003 South Coast Ozone SIP, and preliminary modeling for various Ozone episodes.

This web site includes summarized emission data by major source category for annual average, summer seasonal average, and winter seasonal average periods specific to the SCOS domain, which includes emissions from the following counties: Imperial, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, and Ventura

Note: The version control for updates to the planning and modeling inventory projections are principally kept in sync. If inputs to the forecast model have changed, both planning and modeling projections are re-run to ensure that the planning and modeling inventory outputs reflect the same set of inputs. There is typically a lag time of a couple days between the dates posted for planning and modeling EI projections (either in their original posting or when updates occur) due to the CEFS longer run-time required for the modeling projections.

I. Base Year Emissions Data

The selection of the 1997 inventory as the base year inventory for the SCOS domain was decided several years ago when the project began. As a result, the greatest amount of resources has been dedicated by the ARB staff and the districts in the SCOS domain to construct and maintain the most comprehensive inventory possible for the 1997 calendar year. Extra efforts have been made in the quality assurance review of the emissions data as well as the spatial and temporal information in the 1997 inventory to ensure a reliable product. The SCOS projections are based on the 1997 CEIDARS inventory with updates as of September 24, 2002. Documentation of area source source emission estimation methodologies for ARB categories are available at <http://www.arb.ca.gov/emisinv/areasrc/areameth.htm>

II. Stationary Source Growth Data

South Coast District:

Growth assumptions are based on SCAG economic data
Submittal to ARB April 24, 2001

Demographic data updates
Submittal to ARB May 21, 2002;

Economic data updates for Los Angeles County
Submittal to ARB July 19, 2002.

Other Data Sources:

Department of Finance – Population Data

Growth Overwrites – Mojave, Santa Barbara, San Luis Obispo, and
Ventura districts provided growth data for some specific categories.

III. Stationary Source Control Data

South Coast District:

Submittal to ARB June 4, 2002.

Ventura APCD:

Submittal to ARB March 26, 2001.

Note: For other SCOS Regions, stationary source control profiles are still based on prior ARB control category definition defaults – no district rule specific control data are available yet.

IV. On-Road Mobile Source Emissions

Based on EMFAC2001 version 2.08 (reference: 2002 Almanac runs).
Fractions from the CEIDARS database were used to calculate emissions for
ROG and PM10.

V. Off-Road Mobile Source Emissions

Based on OFFROAD Model Runs September 2001 (reference: 2002 Almanac runs).

Key Updates to the Sep 2001 OFFROAD version:

- “Draft” evaporative emission estimates incorporated for planning and modeling purposes only (yet to be Board Approved)
- SO_x and PM emissions re-calculated to account for statewide low sulfur fuel benefits and SCAQMD Rule 403.1

VI. Special Categories in SCAQMD

Projected emissions for aircraft, ships, and RECLAIM sources were submitted in batch to ARB (as opposed to running CEFS projections based on growth and control data). The emissions were derived by SCAQMD staff as follows:

Aircraft - Projected emissions for aircraft were submitted in batch to ARB (as opposed to doing CEFS projections based on growth and control data). The emissions were derived by SCAQMD staff as follows:

Commercial Airports - 1999 and 2025 emissions were provided by SCAG (scenario 9). (In-between years interpolated by SCAQMD based on MAP data from SCAG for each airport at 5-year increments)

General Aviation - Growth factors developed by SCAQMD based on SCAG's projected level of operations.

Military Aircraft - Projected emissions developed by the military bases and submitted to SCAQMD.

Ships - Projected emissions for ships were submitted in batch to ARB (as opposed to doing CEFS projections based on growth and control data). Data Source: Marine Vessels Emissions Inventory (An Update to 1996 Report); ARCADIS; Sep 1999.

RECLAIM – Future year RECLAIM emission allocations (by facility for NOx and SOx) submitted by SCAQMD to the ARB in batch.

VII. CEFS Forecast Notes

CEFS includes two options for generating seasonal (or “planning” emission estimates):

Method 1 - Traditional method (used in the 1994 SIP and 1997 South Coast AQMP) which estimates seasonal emissions for point sources based on the number of operating days per week and the number of operating weeks per year;

Method 2 - New method, which estimates the seasonal emissions for point sources, based on the fractional monthly operation activity for each emission process.

For the SCOS domain, we employed Method 1 for the South Coast District region at the request of SCAQMD to be consistent with methods used in prior AQMP's, and Method 2 was utilized for the rest of the domain.

VIII. Version Control Chronology

a.) Planning Projections

[EIB Chain of Custody Reference Form #845WEB](#)

August 14, 2002:

Original Web Release of Version 1.0 Planning Projections

November 15, 2002:

On-Road emissions updated with estimates from EMFAC2002 (version 2.2).

February 26, 2003:

External Baseline Adjustments for SCAQMD.

March 3, 2003:

Updated SCOS Emission Reductions by Rule.

b. Modeling Projections

EIB Chain of Custody Reference Id:

[EIB Chain of Custody Form #845](#)

May 16, 2003:

Posting of August 1997 Ozone Episode Modeling Projections